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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

15 Nov 2005

~~PETITION FEE TRADEMARK~~

Under 37 CFR 1.17(f), (g) &amp; (h)

**TRANSMITTAL**

(Fees are subject to annual revision)

Send completed form to: Commissioner for Patents  
P.O. Box 1450, Alexandria, VA 22313-1450

<i>Patent</i>	<i>Application Number</i>	<b>10/785,995</b>
<i>Date</i>	<i>Filing Date</i>	<b>February 26, 2004</b>
<i>Inventor</i>	<i>First Named Inventor</i>	<b>J. HARA et al.</b>
<i>Art Unit</i>	<i>Art Unit</i>	<b>2171</b>
<i>Examiner</i>	<i>Examiner Name</i>	<b>TDB</b>
<i>Docket</i>	<i>Attorney Docket Number</i>	<b>MEI-102</b>

Enclosed is a petition filed under 37 CFR 1.102(d) that requires a processing fee (37 CFR 1.17(f), (g), or (h)). Payment of \$ 130.00 is enclosed.

This form should be included with the above-mentioned petition and faxed or mailed to the Office using the appropriate Mail Stop (e.g., Mail Stop Petition), if applicable. For transmittal of processing fees under 37 CFR 1.17(i), see form PTO/SB/17i.

**Payment of Fees** (small entity amounts are NOT available for the petition (fees)

The Commissioner is hereby authorized to charge the following fees to Deposit Account No. 50-1417:

petition fee under 37 CFR 1.17(f), (g) or (h)       any deficiency of fees and credit of any overpayments

Enclose a duplicative copy of this form for fee processing.

Check in the amount of \$ \_\_\_\_\_ is enclosed.

Payment by credit card (From PTO-2038 or equivalent enclosed). Do not provide credit card information on this form.

**Petition Fees under 37 CFR 1.17(f):****Fee \$400****Fee Code 1462**

For petitions filed under:

§ 1.53(e) - to accord a filing date.  
 § 1.57(a) - to according a filing date.  
 § 1.182 - for decision on a question not specifically provided for.  
 § 1.183 - to suspend the rules.  
 § 1.378(e) for reconsideration of decision on petition refusing to accept delayed payment of maintenance fee in an expired patent.  
 § 1.741(b) - to accord a filing date to an application under § 1.740 for extension of a patent term.

**Petition Fees under 37 CFR 1.17(g):****Fee \$200****Fee code 1463**

For petitions filed under:

§1.12 - for access to an assignment record.  
 §1.14 - for access to an application.  
 §1.47 - for filing by other than all the inventors or a person not the inventor.  
 §1.59 - for expungement of information.  
 §1.103(a) - to suspend action in an application.  
 §1.136(b) - for review of a request for extension of time when the provisions of section 1.136(a) are not available.  
 §1.295 - for review of refusal to publish a statutory invention registration.  
 §1.296 - to withdraw a request for publication of a statutory invention registration filed on or after the date the notice of intent to publish issued.  
 §1.377 - for review of decision refusing to accept and record payment of a maintenance fee filed prior to expiration of a patent.  
 §1.550(c) - for patent owner requests for extension of time in ex parte reexamination proceedings.  
 §1.956 - for patent owner requests for extension of time in inter partes reexamination proceedings.  
 § 5.12 - for expedited handling of a foreign filing license.  
 § 5.15 - for changing the scope of a license.  
 § 5.25 - for retroactive license.

**Petition Fees under 37 CFR 1.17(h):****Fee \$130****Fee Code 1464**

For petitions filed under:

§1.19(g) - to request documents in a form other than that provided in this part.  
 §1.84 - for accepting color drawings or photographs.  
 §1.91 - for entry of a model or exhibit.  
 §1.102(d) - to make an application special.  
 §1.138(c) - to expressly abandon an application to avoid publication.  
 §1.313 - to withdraw an application from issue.  
 §1.314 - to defer issuance of a patent.

Name (Print/Type)	<b>Colin D. Barnitz</b>	Registration No. (Attorney/Agent)	<b>35,061</b>
Signature		Date	November 21, 2005

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/785,995 Confirmation No. 2682  
Applicant : HARA, J. et al.  
Filed : February 26, 2004  
Title : FILE MIGRATION METHOD BASED ON ACCESS HISTORY  
TC/AU : 2171  
Examiner : TBD  
Docket No. : MEI-102  
Customer No.: 24956

**PETITION TO MAKE SPECIAL**  
**(ACCELERATED EXAMINATION UNDER 37 CFR §1.102(d))**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The Applicants petition the Commissioner to make the above-identified application special in accordance with 37 CFR §1.102(d). In support of this Petition, pursuant to MPEP § 708.02(VIII), Applicants state the following.

**(A) REQUIRED FEE**

This Petition is accompanied by the fee set forth in 37 CFR § 1.117(h).

Payment of the fee has been made in the manner set forth below in Section (G).

11/23/2005 MBEYENE1 00000149 10785995

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130.00 DP

**(B) ALL CLAIMS ARE DIRECTED TO A SINGLE INVENTION**

Following the Preliminary Amendment filed on the same date as this paper, claims 5-10, 12, 14, 16 and 18 are pending in the application. All the pending claims of the application are directed to a single invention. If the Office determines that all claims in the application are not directed to a single invention, Applicant will make election without traverse as a prerequisite to the grant of special status in conformity with established telephone restriction practice.

As set forth in independent claims 5, 12, 14, 16 and 18, the invention is generally directed to managing information resources on a network based on access history. Under independent claim 5, the invention is an access history management device for integrally managing an entire access history for one or more information resources, said access history management device being connected with a network that also connects a plurality of storage devices for storing said one or more information resources and a plurality of information resource management devices for managing a storage location of said one or more information resources, wherein each said information resource management device maintains an access history for said one or more information resources stored in a pre-specified storage device, said access history management device comprising: a collection unit for collecting said access history at a predetermined timing from said plurality of information resource management devices, said access history including at least information for identifying a sender information resource management device that has sent an access request for said one or more information resources, and identification

information for identifying the one or more information resources, said identification information being assigned based on identity of content of said one or more information resources; and an instruction sending unit for sending a change instruction to at least one of said information resource management devices based on said access history, said change instruction being intended to change storage devices to store said one or more information resources therein.

In addition, under independent claim 12, the invention is computer system including a network connecting a plurality of storage devices for storing one or more information resources, a plurality of information resource management devices for managing said one or more information resources among said plurality of storage devices, and an access history management device for managing an access history for all one or more information resources, wherein each information resource management device maintains an access history for said information resources stored in a storage device pre-specified among said plurality of storage devices, said access history management device collects said access history from said each information resource management device, said access history including at least information for identifying a sender information resource management device that has sent an access request for said one or more information resources and identification information for identifying the one or more information resources, said identification information being assigned based on identity of content of said one or more information resources, said access history management device sends a change instruction to at least one of said information resource management devices

based on the access history, said change instruction being intended to change storage devices to store said one or more information resources therein, and said at least one information resource management device, having received said change instruction, changes storage devices to store said one or more information resources.

Furthermore, under independent claim 14, the invention is a method of managing one or more information resources based on an entire access history for said one or more information resources stored in a plurality of storage devices, wherein a plurality of information resource management devices, each for managing a pre-specified storage device to store said one or more information resources, maintain an access history for said one or more information resources stored in said pre-specified storage devices, said method comprising steps of: (a) collecting said access history at a predetermined timing from said plurality of information resource management devices, said access history including at least information for identifying a sender information resource management device that has sent an access request for said one or more information resources and identification information for identifying the one or more information resources, said identification information being assigned based on identity of content of said one or more information resources; and (b) sending a change instruction to at least one of said information resource management devices based on said access history, said change instruction being intended to change storage devices to store said one or more information resources therein.

Additionally, under independent claim 16, the invention is a method of managing one or more information resources in a computer system including a network connecting a plurality of storage devices for storing said one or more information resources, a plurality of information resource management devices for managing said one or more information resources among said plurality of storage devices, and an access history management device for managing an access history for all one or more information resources, said method comprising steps of: (a) causing each information resource management device to maintain an access history for said one or more information resources stored in a storage device pre-specified among said plurality of storage devices; (b) causing said access history management device to collect said access history from said each information resource management device, said access history including at least information for identifying a sender information resource management device that has sent an access request for said one or more information resources and identification information for identifying the one or more information resources, said identification information being assigned based on identity of content of said one or more information resources; (c) sending a change instruction to at least one of said information resource management devices based on the access history, said change instruction being intended to change storage devices to store said one or more information resources therein, and (d) causing said at least one information resource management device having received said change instruction to change storage devices to store said one or more information resources therein.

Finally, under independent claim 18, the invention is a computer readable medium in which a computer program is recorded, the computer program for causing a computer to manage one or more information resources based on an entire access history for said one or more information resources stored in a plurality of storage devices, wherein a plurality of information resource management devices, each for managing a pre-specified storage device to store said one or more information resources maintain an access history for said one or more information resources stored in said pre-specified storage device, said computer program causing said computer to implement functions of: collecting said access history at a predetermined timing from said plurality of information resource management devices, said access history including at least information for identifying a sender information resource management device that has sent an access request for said one or more information resources and identification information for identifying the one or more information resources, said identification information being assigned based on identity of content of said one or more information resources; and sending a change instruction to at least one of said information resource management devices based on said access history, said change instruction being intended to change storage devices to store said one or more information resources therein.

**(C) PRE-EXAMINATION SEARCH**

A pre-examination search has been conducted, directed to the invention as claimed. The pre-examination search was conducted in the following US Manual of Classification areas:

<u>Class</u>	<u>Subclass</u>
707	1, 2, 8-10, 100-102, 200-205
709	212, 217
711	111-114, 148-156, 161-165, 170-173

Furthermore, a keyword search was conducted on the USPTO's EAST database, including the US patent database, the published patent applications database, and the European and Japanese patent abstract databases. In addition, a search for non-patent literature was conducted on the ACM (Association for Computing Machinery) online databases.

**(D) REFERENCES DEEMED MOST-CLOSELY RELATED TO THE SUBJECT MATTER ENCOMPASSED BY THE CLAIMS**

Based upon a review of the documents located by the search and the documents already of record in the application, the references deemed to be most-closely related to the subject matter encompassed by the claims are listed below.

<u>Document No.</u>	<u>Inventor</u>
US 4432057	Daniell et al.
US 5355475	Tanaka et al.
US 6173362	Yoda
US 6779078	Murotani et al.
US 20020078167	Shavit et al.
US 20030076786	Richard
US 20040139167	Edsall et al.

<u>Document No.</u>	<u>Inventor</u>
US 20040210583	Enko et al.
JP 11085411	Tateoka

**Publication**

"auto-stor, The Power of Intelligent Data - Product Sheet", Arkivio, Inc., pp. 1-4, 2002-2003.

Because all of the above-listed references (as well as any other references uncovered during the search) have been made of record in the present application by Information Disclosure Statements filed July 11, 2005, and February 26, 2004, in accordance with MPEP § 708.02(VIII)(D), additional copies of these documents have not been submitted with this Petition.

**(E) DETAILED DISCUSSION OF THE REFERENCES**

Following a brief discussion of features of the invention in Section (E)(1) below, the references deemed most-closely related are discussed in Section (E)(2) below, pointing out, with the particularity required by 37 CFR 1.111 (b) and (c), how the claimed subject matter is patentable over the teachings of these documents.

**(1) It is Submitted that the Present Invention is Patentable Over the References for the Following Reasons**

The present invention provides for performing the replication and migration of shared information resources, such as in a widely-distributed environment, such as the Internet, for improving access efficiency. The replication and migration is performed based on a collected access history, such as access frequency and

information for identifying an accessor in the widely-distributed environment, thereby enabling network distances to be taken into consideration when determining whether to replicate or migrate an information resource. It is submitted that the cited references, whether taken individually or in combination with each other, fail to teach or suggest the invention as claimed. In particular, the cited references, at a minimum, fail to teach or suggest, as recited in independent claims 5, 12, 14, 16 and 18:

a first feature of the present invention, as recited in independent claims 5, 12, 14, 16 and 18, including collecting the access history from the information resource management devices, wherein the access history includes at least information for identifying a sender information resource management device that has sent an access request for one or more information resources and identification information for identifying the one or more information resources, and sending a change instruction to at least one of the information resource management devices based on the access history, the change instruction being intended to change storage devices to store the one or more information resources therein.

Further, to the extent applicable to the present Petition, Applicants submit that although the distinguishing feature may represent a good portion of the claimed invention, the claimed invention including said feature and its inter-operation provides a novel device, method, system and program not taught or suggested by any of the references of record, or any combination thereof.

## **2. Discussion of the References Deemed to be Most-Closely Related**

The patent to Daniell et al., US 4432057, discloses a method and system for operating a computing system including a plurality of nodes, with each node having means for storing at least one data item, characterized by the steps of accepting a request having a specified currency, and responsive to dynamically replicating data under distributed system control while selectively deferring conformation of the replicated data. The invention further provides for operating a multiprocessing system including a communication network interconnecting a plurality of data processing nodes accessing a distributed data base, the method including the steps of storing unique and replicated data items at a plurality of nodes, and responsive to a request by an application at this node enabling access by the application to the copy of a data item stored at this node. The system communicates copies of updated data items to other nodes; where the improvement controls utilization of data storage and communication resources to enhance data access performance and ensures network-wide data consistency and integrity where accesses to data may have time varying and a priori unknown geographic and temporal affinity and where the communication network may be unstable, by dynamically replicating data under distributed system control. (See, e.g., Abstract and column 4, line 29, through column 5, line 14, and column 30, line 35, through column 31, line 22.) However, Daniell et al. do not teach or suggest the present invention, such as sending a change instruction to an information resource management device or collecting an access history. More particularly, Daniell et al. do not teach the above-described first

feature of the present invention, as recited in independent claims 5, 12, 14, 16 and 18.

The patent to Tanaka et al., US 5355475, discloses a system and a method of relocating a plurality of files respectively with a different access frequency stored in a plurality of external storage units having different capacities and speeds with one another. The method of relocating a file stored in a source storage unit includes the steps of determining an access indicator indicative of the efficiency of access to the file in response to a relocation instruction, determining a relocating destination storage unit of the file in the storage hierarchy, and relocating the file in the determined destination storage unit. The file relocating method and a system relocates files within a relocation allowable time so as to satisfy an execution time expected by a user, determines file relocating destinations among storage units having different access capabilities in the descending order of the file access frequencies not only per unit time but also per unit file capacity, and determines relocating destinations so as to balance access loads of respective storage units among storage units having the identical access capability. (See, e.g., Abstract, column 2, line 14, through column 3, line 20, and column 4, line 33, through column 7, line 67.) However, Tanaka et al. do not teach or suggest the present invention, such as collecting access histories from information resource management devices, or sending change instructions based on the access history. More particularly,

Tanaka et al. do not teach the above-described first feature of the present invention, as recited in independent claims 5, 12, 14, 16 and 18.

The patent to Yoda, US 6173362, discloses an information storage system adaptable to an optical disk storage system using a plurality of disks as storage mediums and capable of performing data input and output operations by changing the disks, and having a mechanism for optimally locating data. The information storage system having a volume managing function and including a magneto-optical disk auto-changer has a data location optimizing means for, in accordance with access speed at which an access of data is made from each of the disks, performing an optimizing function for optimizing data location in a case where data is stored in the disk. The system also has a volume management table for collecting and storing statistical information of data accesses for determining validity of the optimizing function when each of the disks has made an access to data, and data optimization determination means for determining validity of the optimizing function in accordance with the statistical information of data accesses. (See, e.g., Abstract, column 2, line 35, through column 3, line 54, and column 7, line 29, through column 8, line 60.) However, Yoda does not teach or suggest the present invention, such as collecting access histories from information resource management devices or sending change instructions based on the access history. More particularly, Yoda does not teach the above-described first feature of the present invention, as recited in independent claims 5, 12, 14, 16 and 18.

The patent to Murotani et al., US 6779078, discloses a storage system configured to extend over two or more controllers accessed by two or more applications. A host unit communicates with two or more controllers and is provided with a means (external manager, etc.) having the functions of gathering, compiling and managing the activity rate of each physical drive constituting logical volumes, the activity rate of the logical volumes, the access patterns, the performance information and the configuration information of the correlation between the physical drives and the logical volumes. The external manager generates a data migration instruction by using the accumulated information; and inputs the application priority conditions and a priority period to equilibrate the accessing load, and issues an instruction to the controller. Because the external manager treats all performance bottlenecked volumes of the highest priority application as migration targets, performance efficiency can be improved by data migration of the volume group most frequently accessed by specific application disk array unit groups accessed by two or more applications. Further, since the external manager does not execute migration of an application whose performance cannot be improved by data migration because the performance bottleneck of a portion of the volumes cannot be resolved, the resources of a high speed storage pool are not needlessly consumed and greater performance efficiency is enabled. (See, e.g., Abstract, column 1, line 21, through column 2, line 46, and column 3, line 5, through column 4, line 35.) However, Murotani et al. do not teach or suggest the present invention, such as collecting an

access history that includes information for identifying a sender information resource management device that has sent an access request for an information resource. More particularly, Murotani et al. do not teach the above-described first feature of the present invention, as recited in independent claims 5, 12, 14, 16 and 18.

The published patent application to Shavit et al., US 20020078167, discloses a method and system for automatically relocating private data in a communication network having a distributed architecture to increase the efficiency of the network and, more particularly, to moving subscriber records within that network based on pattern analysis of location data indicating when access to the information services requires retrieval of subscriber records from remote locations. Relocation of subscribers is automatically detected by generating an activity log file of location data and identifiers, where each identifier is associated with either a communication device or a person using the communication system. Pattern analysis is automatically performed based on the location data and the identifiers to determine whether private data should be relocated from a first location to a second location within the communication system, when service can be provided more efficiently from the second location. Completely automatic relocation of private data may occur upon identification of a group or single set of private data to be relocated. The pattern analysis includes comparing the location data for subscribers with a record of where the subscribers "home" information server is located. After accumulating occurrences of subscribers accessing the distributed information services systems

via home and non-home information servers for all of the data that has been collected, it is determined whether a subscriber has more than a predefined number of access from a non-home information server. If so, the percentage of "non-home" accesses to "at-home" access is compared with a predefined percentage. The transfer of the subscriber profile is coordinated by management center 18 which performs the analysis. (See, e.g., Abstract and paragraphs 8-12 and 23-29.) Thus, unlike the present invention, Shavit et al. disclose accumulating occurrences of subscribers accessing the distributed information services systems via home and non-home information servers, and Shavit et al. do not teach or suggest the present invention, such as collecting an access history that includes information for identifying a sender information resource management device that has sent an access request for an information resource. More particularly, Shavit et al. do not teach the above-described first feature of the present invention, as recited in independent claims 5, 12, 14, 16 and 18.

The published patent application to Richard, US 20030076786, discloses a method and system for distributing data in network of devices, where each device comprises a database and is capable of communicating with at least one other device in the network, the method comprises: maintaining in the database a list of devices in the network; selecting a device from the list devices; selecting a portion of the database; distributing the selected portion of the database to the selected device; receiving data from at least one other device in the network; and updating the

database in accordance with the received data. In the background there is described an network configuration, including a second device 200b that requests a file 202 from the first device 200a, which supplies the file to the second device 200b. The second device 200b stores the file and transmits it back to the device that made the direct request, i.e., the third device 200c. This process continues until requested file is delivered to the fourth device 200e that made the initial request. Typically, if a file stored on the network is not accessed over a long period of time, the file gets overwritten and therefore removed from the network. Where a particular file is accessed frequently, the file will migrate around the network and will eventually be stored on devices close to where requests for that file are made. (See, e.g., Abstract and paragraphs 9-12.) However, Richard does not teach or suggest the present invention, such as collecting an access history, or sending a change instruction to one of the information resource management devices based on the access history. Rather, with Richard, the file ends up at a particular location based up on requested delivery. More particularly, Richard does not teach the above-described first feature of the present invention, as recited in independent claims 5, 12, 14, 16 and 18.

The published patent application to Edsall et al., US 20040139167, discloses a method and apparatus for a scalable network attached storage system. The apparatus includes a scalable network attached storage system, the network attached storage system including one or more termination nodes, one or more file server nodes for maintaining file systems, one or more disk controller nodes for

accessing storage disks respectively, and a switching fabric coupling the one or more termination nodes, file server nodes, and disk controller nodes. The one or more termination nodes, file server nodes and disk controller nodes can be scaled as needed to meet user demands. The method includes receiving a connection request from a client, selecting a termination node among the plurality of termination nodes to establish a connection with the client in response to the connection request based on a predetermined metric, terminating at the selected termination node a command request received from the client during the connection by extracting a file handle defined by the command request, forwarding the command request to a selected file server node among a plurality of file server nodes interpreting the command request at the selected file server node and accessing an appropriate disk controller node among a plurality of disk controller nodes, and accessing disk storage through the appropriate disk controller node and serving the accessed data to the client. The number of termination nodes, file server nodes, and disk controller nodes are scalable as needed to meet user demands. (See, e.g., Abstract and paragraphs 14 and 46.) However, Edsall et al. do not teach or suggest the present invention, such as collecting an access history, or sending a change instruction to one of the information resource management devices based on the access history. More particularly, Edsall et al. do not teach the above-described first feature of the present invention, as recited in independent claims 5, 12, 14, 16 and 18.

The published patent application to Enko et al., US 20040210583, discloses a technique employed by a computer of a system including a plurality of computers connected by a network for making access via the network to data stored in a storage device connected to another computer. A first server (having a disk storage device storing a file being accessed by a client) checks location information of a network including the client and determines candidate servers for the destination of the file transfer or migration. The first server transmits a migrator acceptor search packet to an unspecified number of servers on the network including the client (or on networks in the proximity of the network including the client) in order to search for the acceptor of the file. A second server which received the migrator acceptor search packet transmits a migration admittance packet (indicating acceptability of the file) to the first server. The first server checks the contents of the migration admittance packet and if the second server is found to be suitable for the migration, transfers the file to the second server. The first server further transmits an advertisement packet, indicating the migration of the file, to the network including the client accessing the file, or to networks in the proximity of the network. Thereafter, the client makes access to the transferred file by accessing the second server. (See, e.g., Abstract and paragraphs 16-17.) However, Enko et al. do not teach or suggest the present invention, such as collecting an access history, or sending a change instruction to one of the information resource management devices based on the access history. More particularly, Enko et al. do not teach the above-described first feature of the present invention, as recited in independent claims 5, 12, 14, 16 and 18.

The Japanese Patent to Tateoka, JP 11085411, discloses a method and system for increasing the response speed not only in a sequential access mode but in a random access mode, by relocating the allocated data based on the relocation of data that is decided by a data relocation decision means. A disk device controller 20 consist of a data relocation control part 22, an access history holding part 24, an address conversion table part 26 and an address conversion control part 28. The part 26 keeps the correspondence between the logical and physical addresses of data, and the part 24 records the history of past accesses which are sent from a CPU 30. The part 22 has a function to estimate the trend and form of an access based on the past access histories and also a function to decide the location of data that can increase the response speed in the decided form of the access. Another function is added to relocate the data by copying the data stored in a magnetic disk drive device 11 or rewriting the address conversion table. (See, e.g., Abstract and Solution.) However, Tateoka does not teach or suggest the present invention, such as collecting an access history, or sending a change instruction to one of the information resource management devices based on the access history. More particularly, Tateoka does not teach the above-described first feature of the present invention, as recited in independent claims 5, 12, 14, 16 and 18.

The publication, "auto-stor, The Power of Intelligent Data - Product Sheet", shows a system for automated storage capacity management and continuous

monitoring of storage and data resource utilization. Data files are organized and prioritized into resource groups based on attributes, such as frequency of access, owners, size, type, and business value. Data and storage resources are matched according to administrator defined classifications and intelligent algorithms. Infrequently used or less important data may be migrated to less expensive storage. (See, e.g., page 2.) Thus, while the publication teaches migrating infrequently used data, the publication does not teach or suggest the present invention, such as collecting an access history, or sending a change instruction to one of the information resource management devices based on the access history. More particularly, the publication does not teach the above-described first feature of the present invention, as recited in independent claims 5, 12, 14, 16 and 18.

Therefore, since the cited references, at a minimum, fail to teach or suggest the above-described first feature of the present invention, as recited in independent claims 5, 12, 14, 16 and 18, it is submitted that all of the claims are patentable over the cited references, whether the references are taken individually or in combination with each other.

**(F) Conclusion**

Applicants have conducted what they believe to be a reasonable search, but make no representation that "better" or more relevant prior art does not exist. The United States Patent and Trademark Office is urged to conduct its own complete

search of the prior art, and to thoroughly examine this application in view of the prior art cited herein and any other prior art that the United States Patent and Trademark Office may locate in its own independent search. Further, while Applicants have identified in good faith certain portions of each of the references listed herein in order to provide the requisite detailed discussion of how the claimed subject matter is patentable over the references, the United States Patent and Trademark Office should not limit its review to the identified portions but rather, is urged to review and consider the entirety of each reference, and not to rely solely on the identified portions when examining this application.

In view of the foregoing, Applicants request that this Petition to Make Special be granted and that the application undergo the accelerated examination procedure set forth in MPEP 708.02 VIII.

**(G) FEE PAYMENT (37 C.F.R. 1.17(h))**

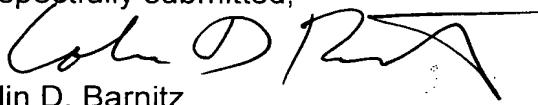
The fee required by 37 C.F.R. § 1.17(h) is to be paid by:

the Credit Card Payment Form (attached) for \$130.00.

charging Account 50-1417 the sum of \$130.00.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417. A duplicate of this petition is attached.

Respectfully submitted,

  
Colin D. Barnitz  
Registration No. 35,061

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